

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A solid state fuel cell comprising a non-polymeric electrolyte, the fuel cell further comprising a member which supports one or more ceramic layers, the member having a porous region bounded by a non-porous region, the non-porous region creating a gas-tight seal which prevents direct combination of oxidant and fuel, and the member comprising metallic non-alloyed titanium.
2. (original) A fuel cell according to claim 1 wherein the fuel cell comprises ceramic.
3. (original) A fuel cell according to claim 2 which is a solid oxide fuel cell.
4. (canceled)
5. (canceled)
6. (withdrawn) The fuel cell according to claim 3 wherein the member comprises an electrode.
7. (withdrawn) The fuel cell according to claim 3 wherein the member supports an electrode.
8. (previously presented) A fuel cell according to claim 1 wherein the member supports an electrolyte.
9. (canceled)
10. (currently amended) A fuel cell according to claim [[9]] 1 wherein at least one of the one or more ceramic layers comprises cerium gadolinium oxide, yttria stabilised zirconia, nickel oxide/yttria stabilised zirconia cermet, nickel oxide/cerium gadolinium oxide cermet,

lanthanum strontium cobalt ferrite/cerium gadolinium oxide, doped lanthanum manganate or mixtures thereof.

11. (withdrawn) A fuel cell according to claim 9 wherein at least one of the one or more ceramic layers is an electrode.

12. (withdrawn) A fuel cell according to claim 9 wherein at least one of the one or more ceramic layers is an interface layer.

13. (currently amended) A fuel cell according to claim [[9]] 1 wherein at least one of the one or more ceramic layers is an electrolyte.

14. (previously presented) A fuel cell according to claim 1 wherein the member is a structural member.

15. (withdrawn) A fuel cell according to claim 5 further comprising an interconnect comprising titanium or an alloy thereof.

16. (withdrawn) A fuel cell according to claim 15 wherein the interconnect is in contact with the member.

17. (withdrawn) A fuel cell according to claim 3 wherein the porous region comprises sintered metal powder.

18. (withdrawn) A fuel cell according to claim 3 wherein the porous region comprises metal felt.

19. (withdrawn) A fuel cell according to claim 3 wherein the porous region is formed by laser machining.

20. (withdrawn-previously presented) A fuel cell according to claim 3 wherein the porous region is formed by electrodeposition.

21. (original) A fuel cell according to claim 3 wherein the porous region is formed by etching.
22. (withdrawn) A fuel cell according to claim 21 wherein the etching is photochemical etching.
23. (original) A fuel cell according to claim 21 wherein the etching is electrochemical etching.
24. (withdrawn) A fuel cell according to claim 15 wherein either the member or the interconnect, or both, are formed by pressing.
25. (canceled)
26. (withdrawn) A fuel cell according to claim 15 wherein either the member or the interconnect, or both, comprise at least 98% titanium by weight.
27. (withdrawn) A fuel cell according to claim 15 wherein either the member or the interconnect, or both, comprise at least 85% titanium by weight.
28. (withdrawn) A fuel cell according to claim 15 wherein either the member or the interconnect, or both, comprise at least 76% titanium by weight.
29. (canceled)
30. (canceled)
31. (withdrawn) A fuel cell according to claim 15 wherein either the member or the interconnect, or both, comprise a titanium alloy.

32. (withdrawn-Previously presented) A fuel cell according to claim 31 wherein the titanium alloy is Ti-6Al-4V, Ti-3Al-2.5V, Ti-6Al-2Sn-4Zr-2Mo-0.08Si or Ti-15Mo-3Nb-3Al-0.2Si.
33. (withdrawn) A fuel cell according to claim 15 wherein either the member or the interconnect, or both, comprise metal foil.
34. (withdrawn-previously presented) A protonic ceramic fuel cell comprising a non-polymeric electrolyte, the fuel cell further comprising a member having a porous region bounded by a non-porous region, the member comprising metallic non-alloyed titanium.
35. (canceled)
36. (withdrawn-Previously presented) The fuel cell according to claim 34 wherein the porous region is bounded by the non-porous region.
37. (withdrawn) The fuel cell according to claim 36 having an electrode comprising the member.
38. (withdrawn) The fuel cell according to claim 36 wherein the member supports an electrode.
39. (withdrawn) A fuel cell according to claim 36 wherein the member supports an electrolyte.
40. (withdrawn) A fuel cell according to claim 36 wherein the member supports one or more ceramic layers.
41. (withdrawn) A fuel cell according to claim 40 wherein at least one of the one or more ceramic layers comprises cerium gadolinium oxide, yttria stabilised zirconia, nickel oxide/ yttria stabilised zirconia cermet, nickel oxide/ cerium gadolinium oxide cermet,

lanthanum strontium cobalt ferrite /cerium gadolinium oxide, doped lanthanum manganate or mixtures thereof.

42. (withdrawn) A fuel cell according to claim 40 wherein at least one of the one or more ceramic layers is an electrode.

43. (withdrawn) A fuel cell according to claim 40 wherein at least one of the one or more ceramic layers is an interface layer.

44. (withdrawn) A fuel cell according to claim 40 wherein at least one of the one or more ceramic layers is an electrolyte.

45. (withdrawn) A fuel cell according to claim 36 wherein the member is a structural member.

46. (withdrawn) A fuel cell according to claim 36 further comprising an interconnect comprising titanium or an alloy thereof.

47. (withdrawn) A fuel cell according to claim 46 wherein the interconnect is in contact with the member.

48. (withdrawn) A fuel cell according to claim 34 wherein the porous region comprises sintered metal powder.

49. (withdrawn) A fuel cell according to claim 34 wherein the porous region comprises metal felt.

50. (withdrawn) A fuel cell according to claim 34 wherein the porous region is formed by laser machining.

51. (withdrawn-Previously presented) A fuel cell according to claim 34 wherein the porous region is formed by electrodeposition.

52. (withdrawn) A fuel cell according to claim 34 wherein the porous region is formed by etching.
53. (withdrawn) A fuel cell according to claim 52 wherein the etching is photochemical etching.
54. (withdrawn) A fuel cell according to claim 52 wherein the etching is electrochemical etching.
55. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, are formed by pressing.
56. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, are formed by superplastic forming.
57. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, comprise at least 98% titanium by weight.
58. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, comprise at least 85% titanium by weight.
59. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, comprise at least 76% titanium by weight.
60. (canceled).
61. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, comprise non-alloyed titanium.
62. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, comprise a titanium alloy.

63. (withdrawn-previously presented) A fuel cell according to claim 62 wherein the titanium alloy is Ti-6Al-4V, Ti-3Al-2.5V, Zr-2Mo-0.08Si or Ti-15Mo-3Nb-3Al-0.2Si.

64. (withdrawn) A fuel cell according to claim 46 wherein either the member or the interconnect, or both, comprise metal foil.

65. (currently amended) A solid state fuel cell comprising a non-polymeric electrolyte, and further comprising a plurality of members, at least one of the plurality of members supporting one or more ceramic layers, or interconnects, or both, each member having a porous region bounded by a non-porous region, the non-porous regions creating a gas-tight seal which prevents direct combination of oxidant and fuel; and the members and interconnect comprising metallic non-alloyed titanium.

66. (original) The solid state fuel cell of claim 65 wherein the fuel cell is a solid oxide fuel cell or a protonic ceramic fuel cell.

67. (canceled)

68. (currently amended) The solid state fuel cell of claim ~~[[67]]~~ 65 wherein at least one of the one or more ceramic layers comprises cerium gadolinium oxide, yttria stabilised zirconia, nickel oxide/yttria stabilised zirconia cermet, nickel oxide/erium gadolinium oxide cermet, lanthanum strontium cobalt ferrite/cerium gadolinium oxide cermet, lanthanum strontium cobalt ferrite/cerium gadolinium oxide, doped lanthanum manganate or mixtures thereof.

69. (withdrawn) The solid state fuel cell of claim 68 wherein at least one of the one or more ceramic layers is an electrorode.

70. (withdrawn) The solid state fuel cell of claim 68 wherein at least one of the one or more ceramic layers is an interface layer.

71. (original) The solid state fuel cell of claim 68 wherein at least one of the one or more ceramic layers is an electrolyte.
72. (withdrawn-previously presented) The solid state fuel cell of claim 65 wherein the plurality of the members or interconnects or both comprise a titanium alloy, wherein the titanium alloy is Ti-6Al-4V, Ti-3Al-2.5V, Ti-6Al-2Sn-4Zr-2Mo-0.08Si or Ti-15Mo-3Nb-3Al-0.2Si.
73. (original) The solid state fuel cell of claim 65 wherein one or more of the plurality of member, or interconnects, or both, comprise metal foil.
74. (new) The solid state fuel cell of claim 65 further comprising a plurality of interconnects, the interconnects comprising metallic titanium or an alloy thereof.